the first layer of cobalt disilicide, wherein the reagent is not adapted to chemically react with the second layer of cobalt disilicide, and wherein the reagent is not adapted to chemically react with the third layer of cobalt disilicide.

B3 43. (New) The structure of claim 34, wherein the ammonium hydroxide comprises approximately 4 percent of a total reagent volume of the reagent, and wherein the hydrogen peroxide comprises approximately 4 percent of the total reagent volume.

44. (New) The structure of claim 34, wherein the reagent is at a temperature within a range of about 45 degrees celsius to about 95 degrees celsius.

REMARKS

Currently pending claims 27, 33-34, and 39-44 are for consideration by the Examiner. Claims 25-26 and 32 are cancelled herein. Claims 39-44 are new. Claims 27, 33, and 34 are amended herein.

The Examiner objected to the drawings, alleging that "SiO_2 in Figures 17 and 18, should be changed to $CoSi_2$. Note that the specification, at page 13, lines 13-14, states that layers 83, 85 and 91 are cobalt disilicide." In response, Applicants have so corrected the drawing.

The Examiner alleges that "[t]he title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed." In response, Applicants have amended the title so as to be clearly indicative of the invention to which the claims are directed.

The Examiner rejected claims 25-27 and 32-34 under 35 U.S.C. §102(b) as being anticipated by Raaijmakers (PN 4,908,331). Since claims 25-26 and 32 have been cancelled, the rejection of claims 25-26 and 32 is moot.

Applicants respectfully traverse the §102 rejections with arguments as follows.

35 U.S.C. §102

Applicants respectfully contend that Raaijmakers does not anticipate claim 27, because Raaijmakers does not teach each and every feature of claim 27. For example, Raaijmakers does not teach "wherein the layer of cobalt disilicide is in contact with a reagent comprising water, ammonium hydroxide, and hydrogen peroxide."

With respect to claim 27, the Examiner alleges that "the term 'the layer of cobalt disilicide is in contact with a reagent comprising water, ammonium hydroxide, and hydrogen peroxide' is method recitation in a device claimed, and it is non-limiting, because only the final product is relevant, not the method of making. Note that this process limitation is part of the intermediate step to form the final product and it does not add any particular element to the final structure. A product by process claim is directed to the product per se, no matter how actually made. See also MPEP 2113. Moreover, an old or obvious product produced by a new method is not a patentable product, whether claimed in 'product by process' claims or not."

In response, Applicants contend that the claimed structure comprising the layer of cobalt disilicide in claim 27 is not an intermediate structure but a final structure corresponding to FIG. 10. Applicants maintain that the present invention discloses that said reagent could be in contact with the intermediate structure of the layer of cobalt disilicide of FIG. 9 or with the final structure

of FIG. 10, depending on the presence or absence of a stringer of an oxide of titanium on the layer of cobalt disilicide. If there is essentially no stringer on the layer of cobalt disilicide, then the layer of cobalt disilicide is part of the final structure of FIG. 10 and is claimed in claim 27. If there is essentially a stringer of an oxide of titanium on the layer of cobalt disilicide, then the layer of cobalt disilicide is part of the intermediate structure of FIG. 9 and is not within the scope of claim 27.

The issue is whether the reagent (comprising water, ammonium hydroxide, and hydrogen peroxide) functions as a structural limitation or a process limitation in claim 27. Applicants contend that the language of claim 27 makes it clear that the reagent functions as a structural limitation and not as a process limitation, because the reagent is not claimed as playing a role in the formation of the structure of claim 27, but is claimed only as being in contact with the final structural form of the layer of cobalt disilicide. Although Applicants acknowledge that the reagent has played a role in forming the structure of claim 27, Applicants contend that claim 27 does not claim said role of the reagent in forming said structure. Claim 27 only claims the structural relationship between the layer of cobalt disilicide and the reagent. Thus, the reagent has a structural role, and not a process role, in claim 27. To appreciate this distinction, consider the process by which the structure of FIG. 10 is formed. Said process immerses the structure of FIG. 9 in the reagent. The reagent, while in contact with the layer of cobalt disilicide, removes the stringer. So long as the stringer essentially exists on the layer of cobalt disilicide, the reagent is in contact with the intermediate structure of FIG. 9 and functions as a structural limitation on the intermediate structure of FIG. 9 or alternatively as a process limitation on the formation of the final structure of FIG. 10. Either alternative could be claimed. However, at the instant at

which there is essentially no stringer remaining on the layer of cobalt disilicide, the reagent is in contact with the final structure of FIG. 10 and functions as a structural limitation on the final structure of FIG. 10, because no process is operative at said instant. The reagent must be in contact with the structure of FIG. 10 at said instant, because if the reagent is removed prior to said instant then the structure of FIG. 10 (requiring essentially no stringer remaining on the layer of cobalt disilicide) cannot be formed. Claim 27 claims the structure of FIG. 10 at said instant or during a period of time following said instant before the reagent is removed. In summary, the reagent may function either as a structural limitation or a process limitation, as explained *supra*. In claim 27, based on the preceding analysis, the reagent functions as a structural limitation and not as a process limitation.

Based on the preceding arguments, Applicants respectfully maintain that Raaijmakers does not anticipate claim 27, and that claim 27 is in condition for allowance.

Applicants respectfully contend that Raaijmakers does not anticipate claim 34, because Raaijmakers does not teach each and every feature of claim 34. For example, Raaijmakers does not teach "wherein the first layer of cobalt disilicide, the second layer of cobalt disilicide, and the third layer of cobalt disilicide are each in contact with a reagent comprising water, ammonium hydroxide, and hydrogen peroxide."

With respect to claim 34, the Examiner alleges that 'the first layer of cobalt disilicide, the second layer of cobalt disilicide, and the third layer of cobalt disilicide are each in contact with a reagent comprising water, ammonium hydroxide, and hydrogen peroxide' is method recitation in a device claimed, and it is non-limiting, because only the final product is relevant, not the method

of making. Note that this process limitation is part of the intermediate step to form the final product and it does not add any particular element to the final structure. A product by process claim is directed to the product per se, no matter how actually made. See also MPEP 2113. Moreover, an old or obvious product produced by a new method is not a patentable product, whether claimed in 'product by process' claims or not."

In response, Applicants contend that the claimed structure comprising the first, second and third layers of cobalt disilicide in claim 34 is not an intermediate structure but a final structure corresponding to FIG. 18. Applicants maintain that the present invention discloses that said reagent could be in contact with the intermediate structure of said layers of cobalt disilicide of FIG. 17 or with the final structure of FIG. 18, depending on the presence or absence of a stringer of an oxide of titanium on the layer of cobalt disilicide. If there is essentially no stringer on said layers of cobalt disilicide, then said layers of cobalt disilicide are part of the final structure of FIG. 18 and are claimed in claim 34. If there is essentially a stringer of an oxide of titanium on said layers of cobalt disilicide, then said layers of cobalt disilicide are part of the intermediate structure of FIG. 17 and are not within the scope of claim 34.

The issue is whether the reagent (comprising water, ammonium hydroxide, and hydrogen peroxide) functions as a structural limitation or a process limitation in claim 34. Applicants contend that the language of claim 34 makes it clear that the reagent functions as a structural limitation and not as a process limitation, because the reagent is not claimed as playing a role in the formation of the structure of claim 34, but is claimed only as being in contact with the final structural form of the first, second, and third layers of cobalt disilicide. Although Applicants acknowledge that the reagent has played a role in forming the structure of claim 34, Applicants

contend that claim 34 does not claim said role of the reagent in forming said structure. Claim 34 only claims the structural relationship between said layers of cobalt disilicide and the reagent. Thus, the reagent has a structural role, and not a process role, in claim 34. To appreciate this distinction, consider the process by which the structure of FIG. 18 is formed. Said process immerses the structure of FIG. 17 in the reagent. The reagent, while in contact with said layers of cobalt disilicide, removes the stringers. So long as the stringers essentially exists on said layers of cobalt disilicide, the reagent is in contact with the intermediate structure of FIG. 17 and functions as a structural limitation on the intermediate structure of of FIG. 17 or alternatively as a process limitation on the formation of the final structure of FIG. 18. Either alternative could be claimed. However, at the instant at which there are essentially no stringers remaining on said layers of cobalt disilicide, the reagent is in contact with the final structure of FIG. 18 and functions as a structural limitation on the final structure of FIG. 18, because no process is operative at said instant. The reagent must be in contact with the structure of FIG. 18 at said instant, because if the reagent is removed prior to said instant then the structure of FIG. 18 (requiring essentially no stringer remaining on the layer of cobalt disilicide) cannot be formed. Claim 34 claims the structure of FIG. 18 at said instant or during a period of time following said instant before the reagent is removed. In summary, the reagent may function either as a structural limitation or a process limitation, as explained *supra*. In claim 34, based on the preceding analysis, the reagent functions as a structural limitation and not as a process limitation.

Based on the preceding arguments, Applicants respectfully maintain that Raaijmakers does not anticipate claim 34, and that claim 34 is in condition for allowance. Since claim 33 depend from claim 34, Applicants contend that claim 33 is likewise in condition for allowance.

CONCLUSION

Based on the preceding arguments, Applicants respectfully believe that claims 27, 33, and 34 and the entire application meet the acceptance criteria for allowance, and therefore request favorable action. If the Examiner believes that anything further would be helpful to place the application in better condition for allowance, Applicants invite the Examiner to contact Applicants' representative at the telephone number listed below.

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Appendix A. Identification of Amended Material

Please amend claims 27, 33, and 34 as follows:

27. (Amended) [The structure of claim 26,] A structure, comprising a layer of cobalt disilicide and a layer of silicon, wherein the layer of cobalt disilicide is on the layer of silicon, wherein the layer of cobalt disilicide is substantially free of cobalt monosilicide, wherein there is essentially no stringer of an oxide of titanium on the layer of cobalt disilicide, and wherein the layer of cobalt disilicide is in contact with a reagent comprising water, ammonium hydroxide, and hydrogen peroxide.

33. The structure of claim [32] 34, further comprising:

a first insulating structure bordering a side of the source and bordering a side of the first layer of cobalt disilicide; and

a second insulating structure bordering a side of the drain and bordering a side of the second layer of cobalt disilicide.

34. (Amended) [The structure of claim 32] A structure having a substrate, wherein the substrate includes:

an insulated-gate field effect transistor (FET), wherein the FET includes a source, a drain, and a gate;

a first layer of cobalt disilicide on the source, said first layer having substantially no cobalt monosilicide, and said first layer having essentially no stringer of an oxide of titanium thereon;

a second layer of cobalt disilicide on the drain, said second layer having substantially no cobalt monosilicide, and said second layer having essentially no stringer of an oxide of titanium thereon; and

a third layer of cobalt disilicide on the gate, said third layer having substantially no cobalt monosilicide, and said third layer having essentially no stringer of an oxide of titanium thereon, wherein the first layer of cobalt disilicide, the second layer of cobalt disilicide, and the third layer of cobalt disilicide are each in contact with a reagent comprising water, ammonium hydroxide, and hydrogen peroxide.